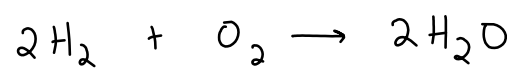


Ch 8 Chemical Reactions

Ch 8 Chemical Reactions



Ch 8 Chemical Reactions

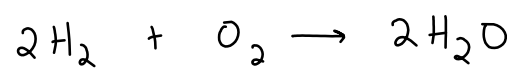


All chemical Rxns follow the Law of Conservation of Matter

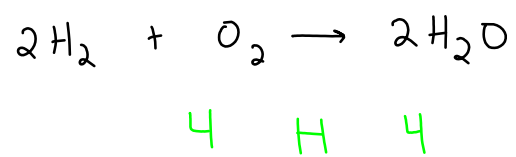
Ch 8 Chemical Reactions

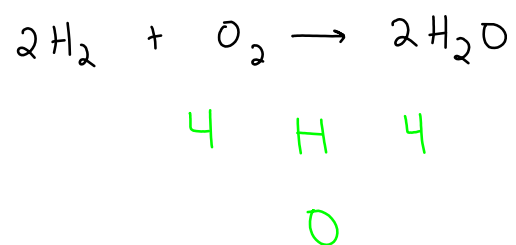


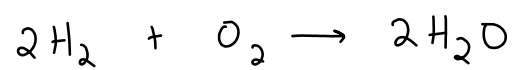
All chemical Rxns follow the Law of Conservation of Matter - # of atoms of each element will not change during the Rxn



H

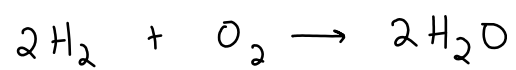






4 H 4

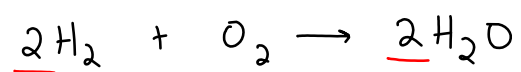
2 O 2



4 H 4

2 O 2

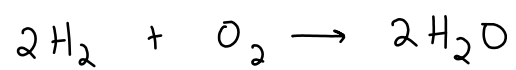
Rxn is Balanced ✓



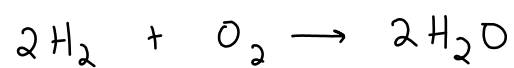
4 H 4

2 O 2

Rxn is Balanced ;
Coefficients are added to Bal Rxn

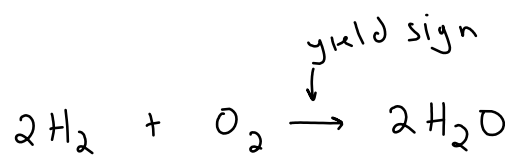


Reactant - starting
materials



Reactants - starting
materials

Products
↳ Resulting materials
formed in a Rxn

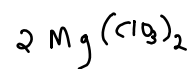
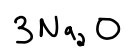
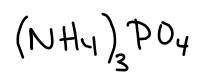
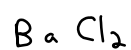


Reactants - starting
materials

Products
↳ Resulting materials
formed in a Rxn

Ch 8 Notes C Block.ink

Counting Atoms



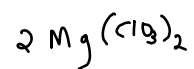
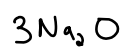
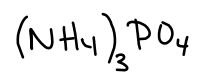
Ch 8 Notes C Block.ink

Counting Atoms



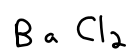
Ba

Cl



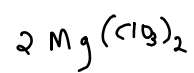
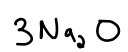
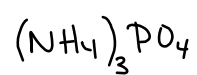
Ch 8 Notes C Block.ink

Counting Atoms



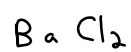
1 Ba

2 Cl



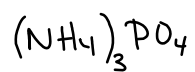
Ch 8 Notes C Block.ink

Counting Atoms



1 Ba

2 Cl

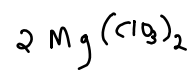
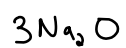


N

H

P

O



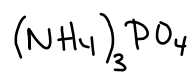
Ch 8 Notes C Block.ink

Counting Atoms



1 Ba

2 Cl

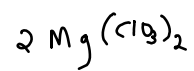
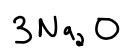


3 N

H

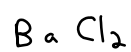
P

O



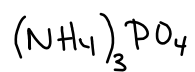
Ch 8 Notes C Block.ink

Counting Atoms



1 Ba

2 Cl

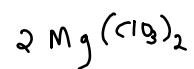
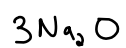


3 N

12 H

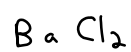
1 P

4 O



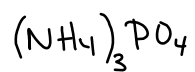
Ch 8 Notes C Block.ink

Counting Atoms



1 Ba

2 Cl

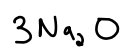


3 N

12 H

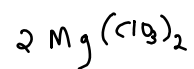
1 P

4 O



6 Na

0



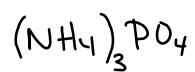
Ch 8 Notes C Block.ink

Counting Atoms



1 Ba

2 Cl

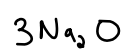


3 N

12 H

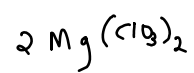
1 P

4 O



6 Na

3 O

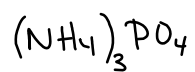


Counting Atoms



1 Ba

2 Cl

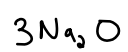


3 N

12 H

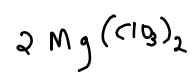
1 P

4 O



6 Na

3 O

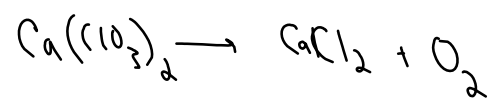


2 Mg

4 Cl

12 O

Are Rxns Balanced?



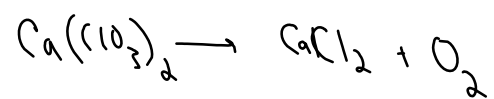
Are Rxns Balanced?



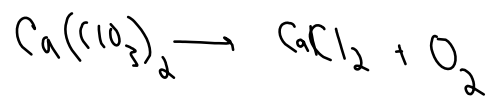
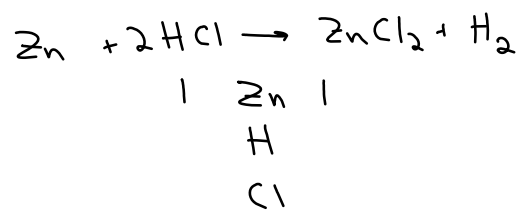
Zn

H

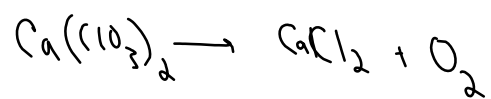
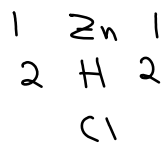
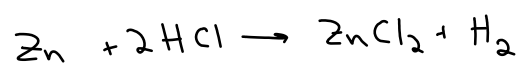
Cl



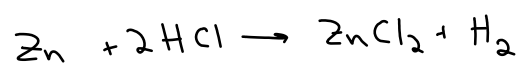
Are Rxns Balanced?



Are Rxns Balanced?



Are Rxns Balanced?

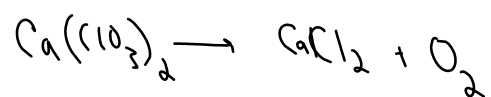


1 Zn 1

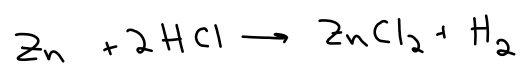
2 H 2

2 Cl 2

Balanced :)



Are Rxns Balanced?

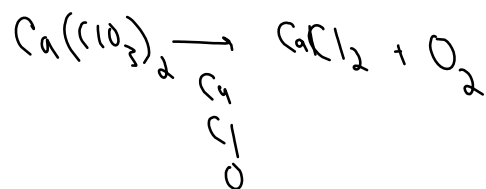


1 Zn 1

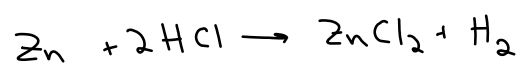
2 H 2

2 Cl 2

Balanced :)



Are Rxns Balanced?

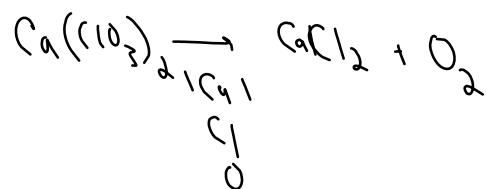


1 Zn 1

2 H 2

2 Cl 2

Balanced :)



Are Rxns Balanced?

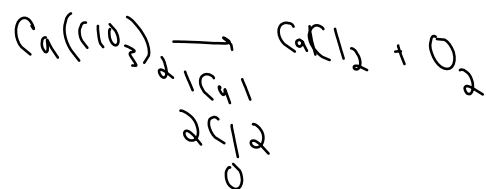


1 Zn 1

2 H 2

2 Cl 2

Balanced :)



2 Ca 1
2 Cl 2
0

Are Rxns Balanced?

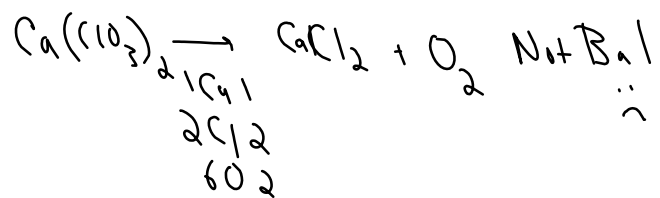


1 Zn 1

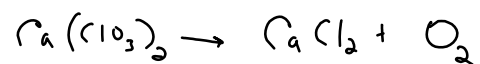
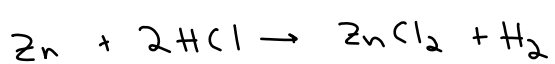
2 H 2

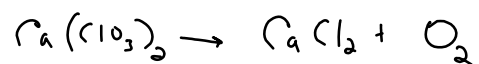
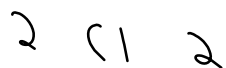
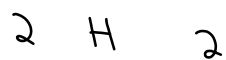
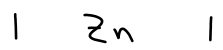
2 Cl 2

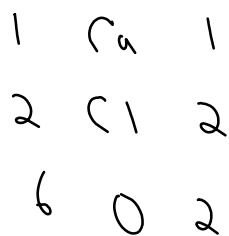
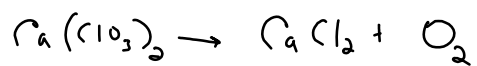
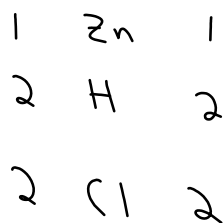
Balanced :)



1 Ca 1
2 Cl 2
6 O 2

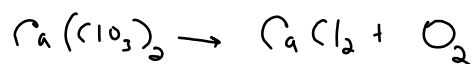








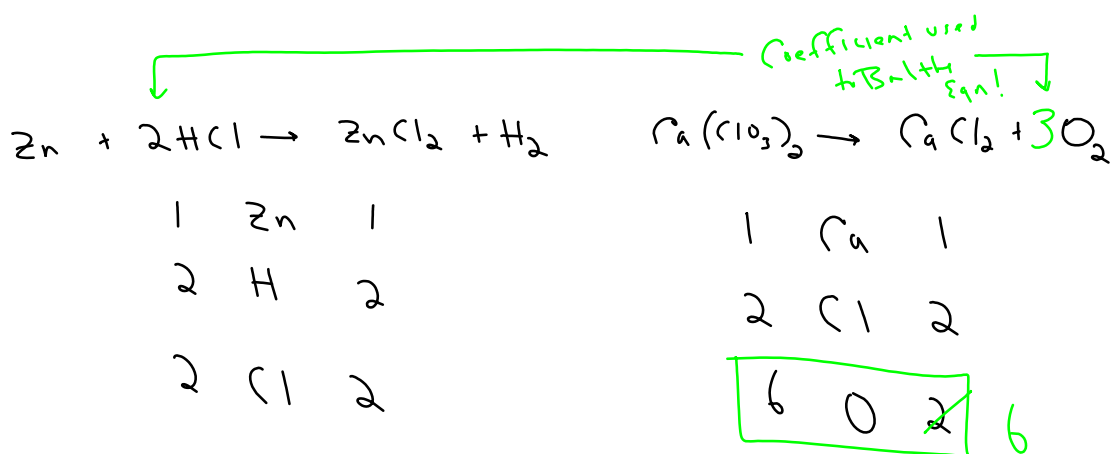
1	Zn	1
2	H	2
2	Cl	2



1	Ca	1
2	Cl	2

6	O	2
---	---	---

Ch 8 Notes C Block.ink



Balancing Eqns

Rules

1. ~~If~~ word Eqn
write out correct
formulas using ion
sheet
- 2.

Balancing Eqns

Rules

1. ~~If~~ word Eqn
write out correct
formulas using ion
sheet
2. Balance everything
But H + O using coeff
: working L → R

Balancing Eqns

Rules

1. ~~If~~ word Eqn
write out correct
formulas using ion
sheet
2. Balance everything
But H + O using coeff
: working L → R
3. Bal H

Balancing Eqns

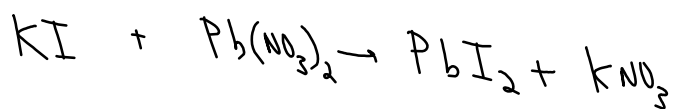
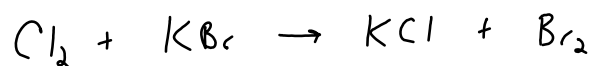
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Balancing Eqns

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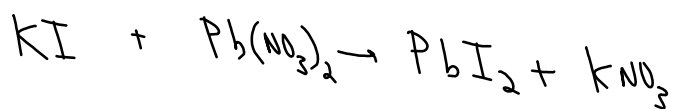
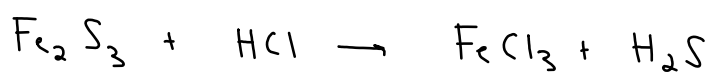
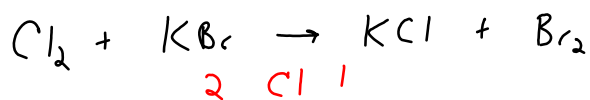
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Balancing Eqns

Rules

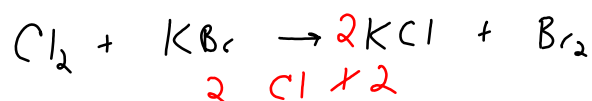
1. If word Eqn
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But H + O using coeff
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Balancing Eqns

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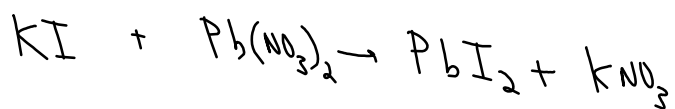
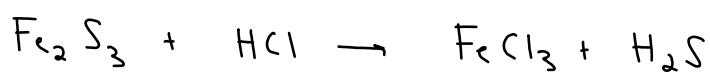
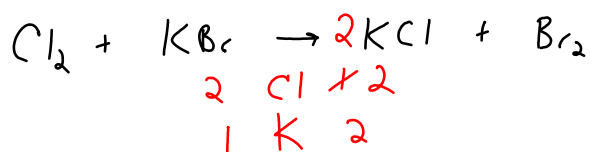
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Balancing Eqns

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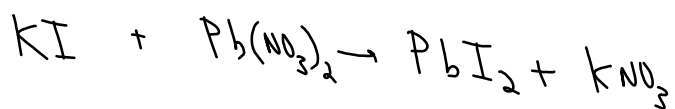
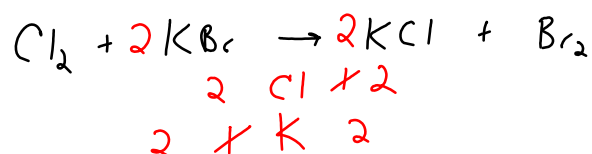
1. If word Eqn
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Balancing Eqns

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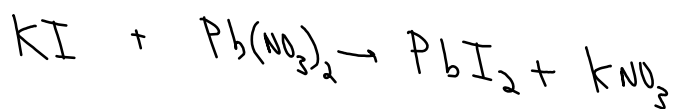
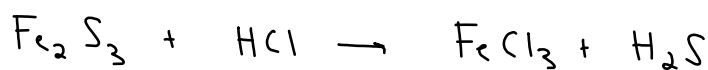
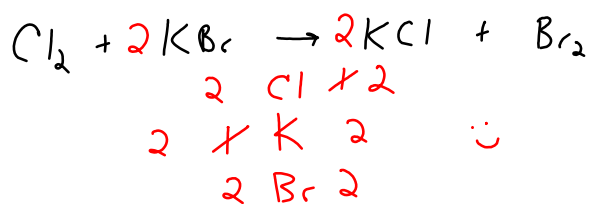
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Balancing Eqns

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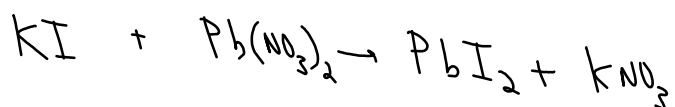
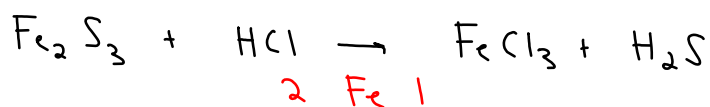
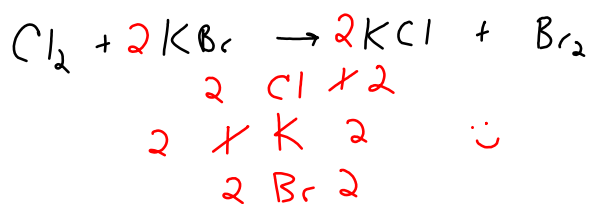
1. If word Eqn
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4. Bal O



Balancing Eqns

Rules

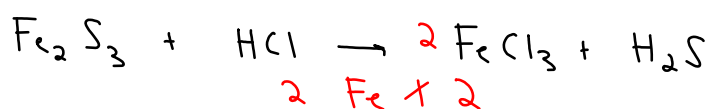
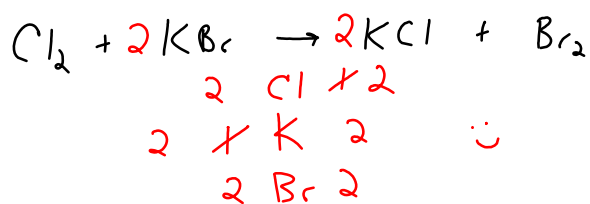
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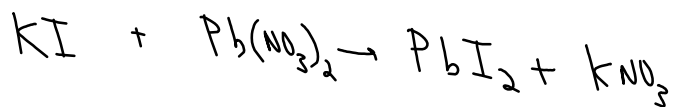
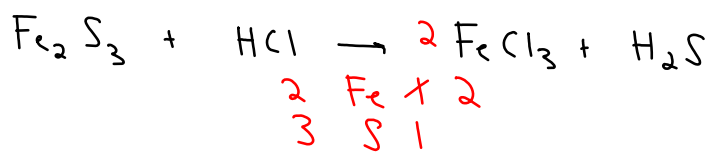
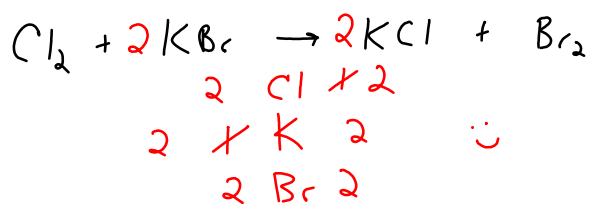
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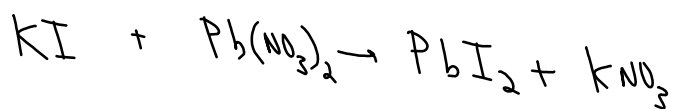
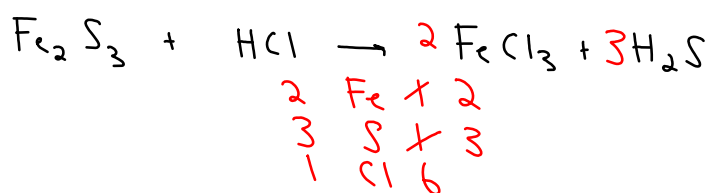
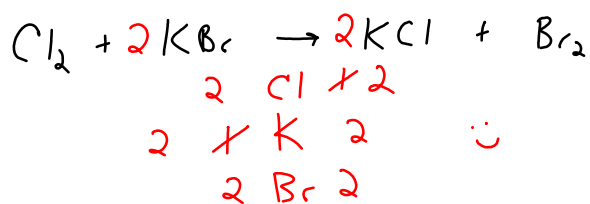
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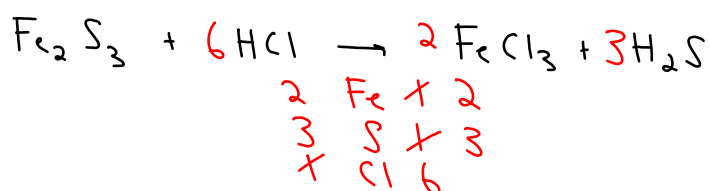
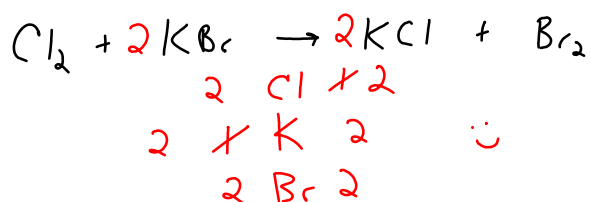
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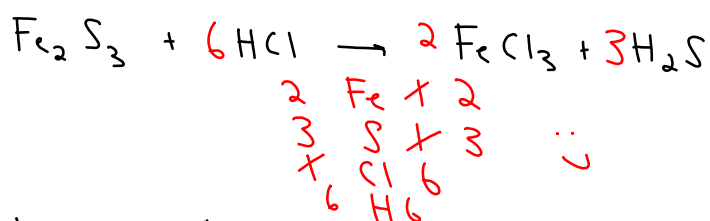
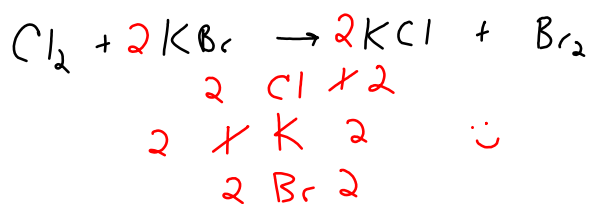
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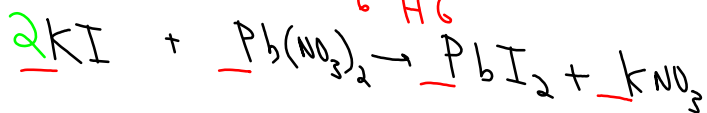
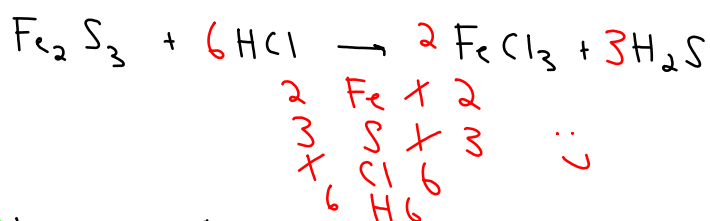
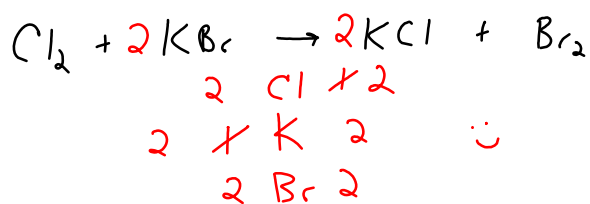
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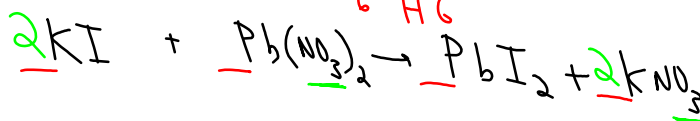
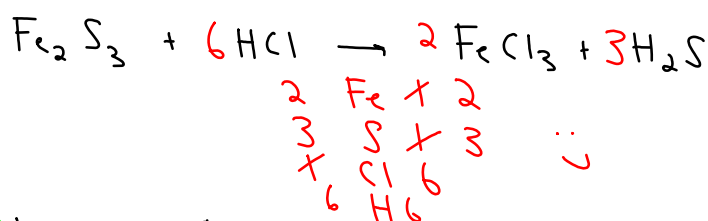
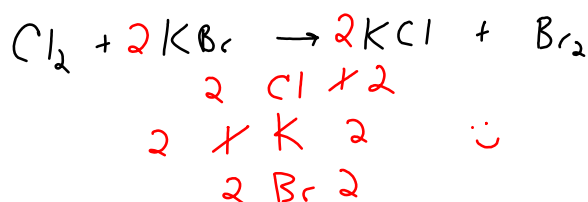
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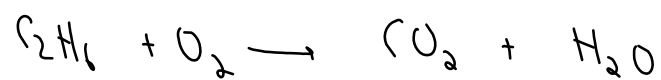
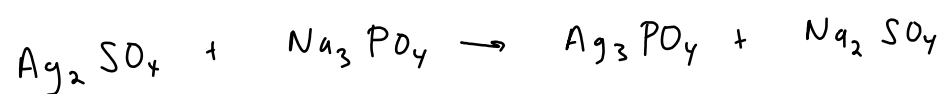


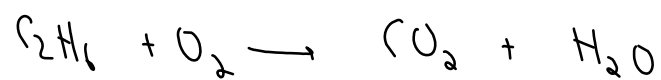
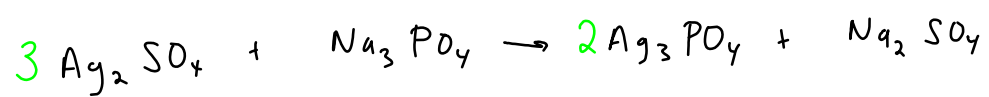
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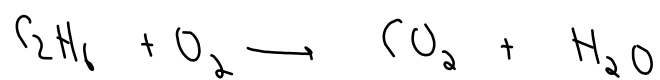
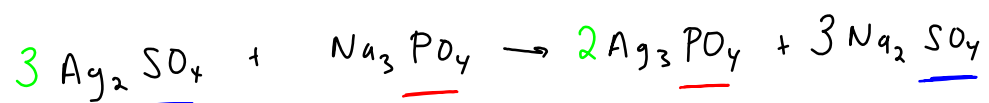
Rules

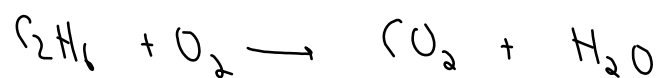
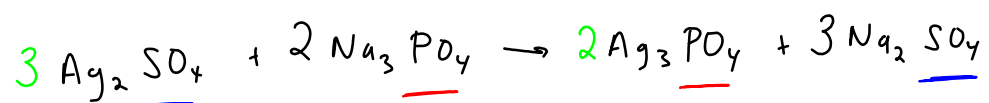
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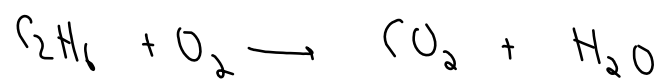
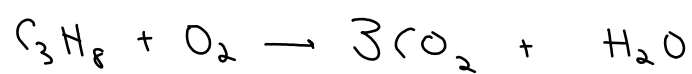
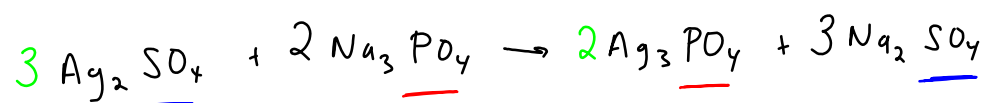


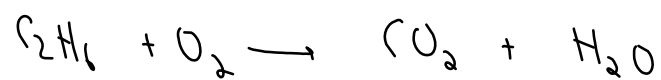
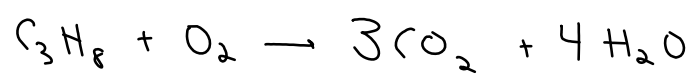
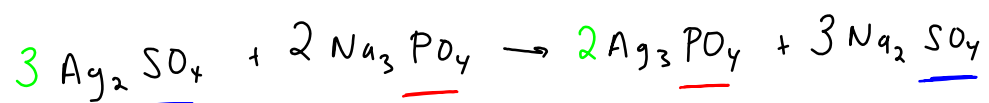


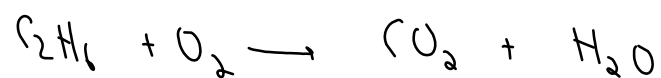
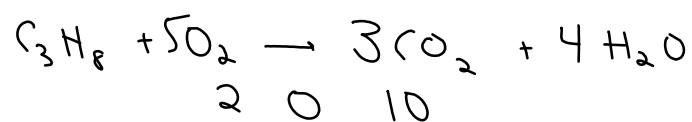
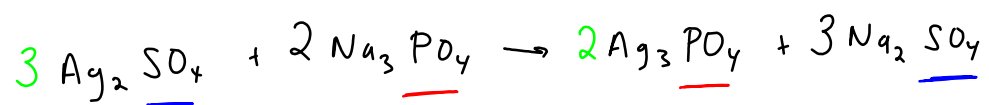


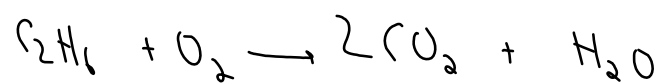
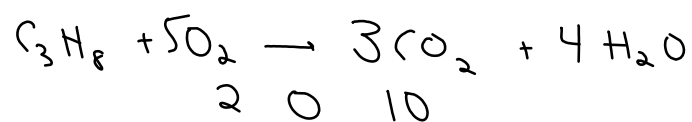
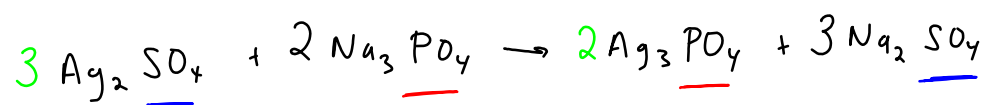


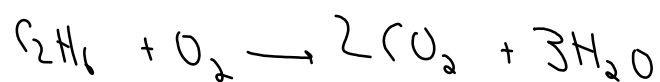
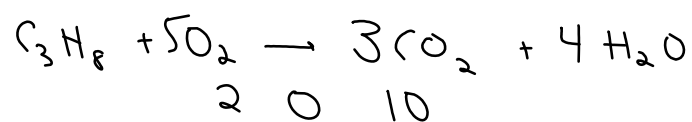
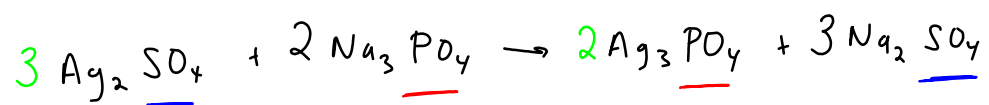


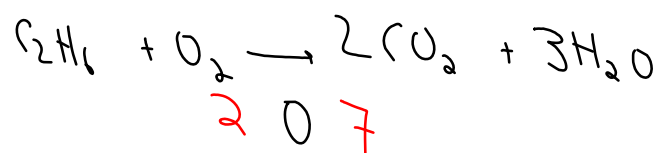
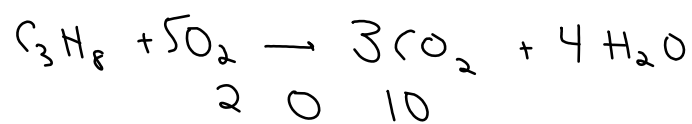
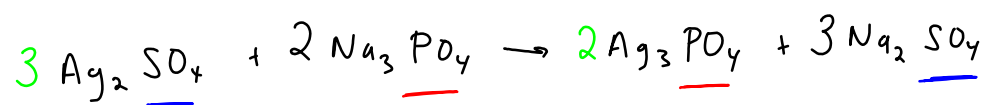


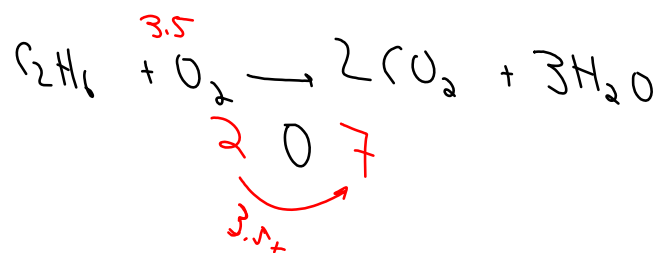
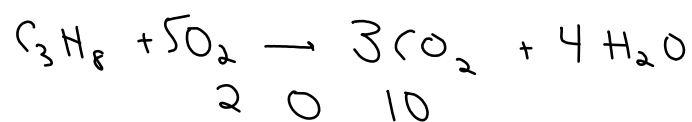
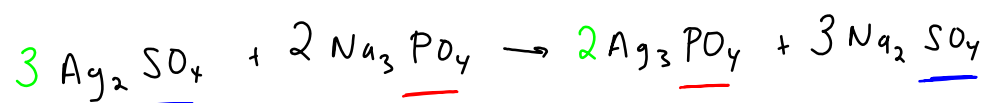


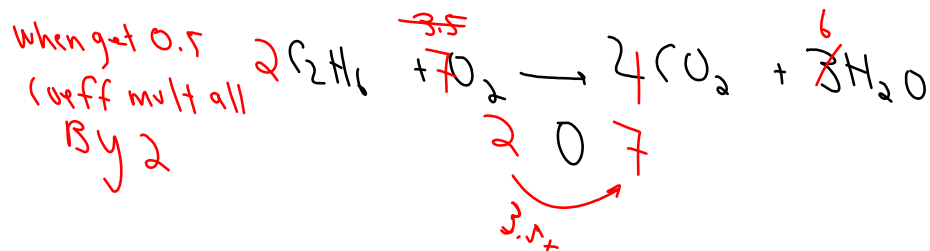
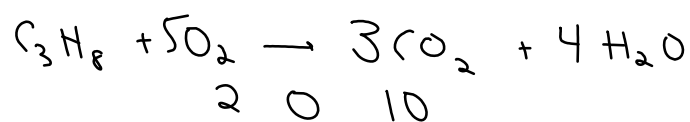
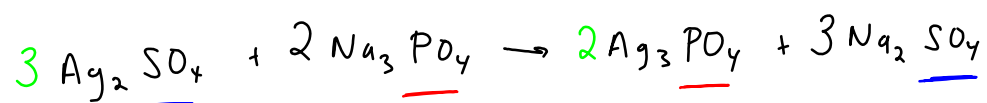












Word Equations

Word Equations - shows Reactants & Products
as words not formulas

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Copper (II) nitrate Reacts w/ Sodium hydroxide yielding
Copper (II) hydroxide and sodium nitrate

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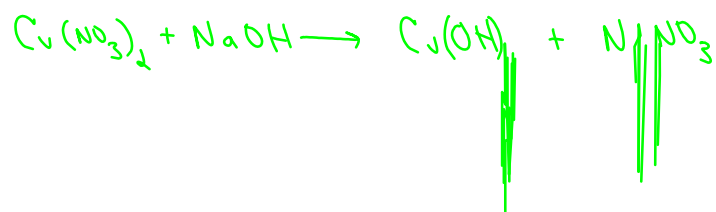
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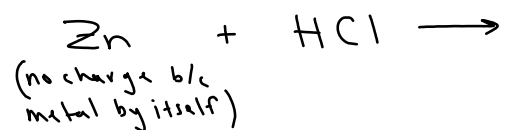


Zinc metal Reacts w/ Hydrochloric Acid yielding
Zinc chloride and hydrogen gas

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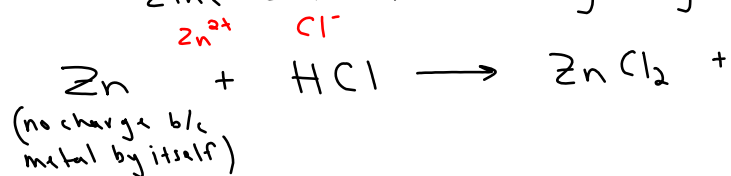
Zn
(no charge b/c
metal by itself)

Zinc metal Reacts w/ Hydrochloric Acid yielding
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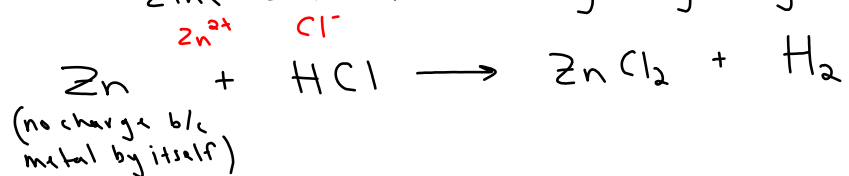
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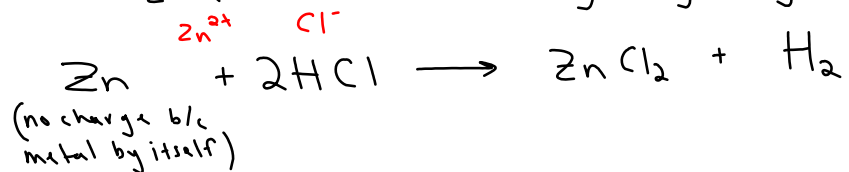
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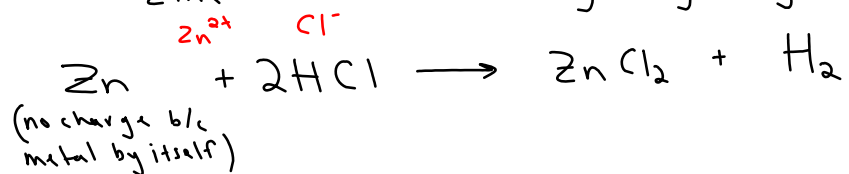
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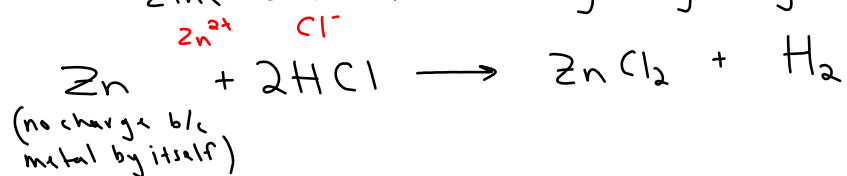
Zinc chloride and hydrogen gas



Potassium chlorate decomposes to produce potassium chloride and oxygen gas

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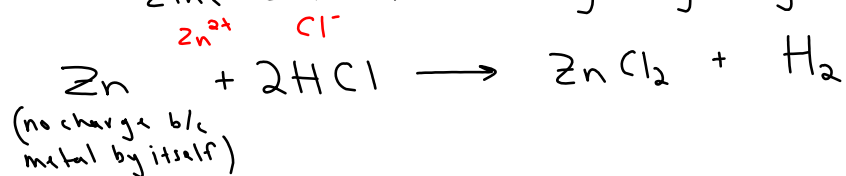
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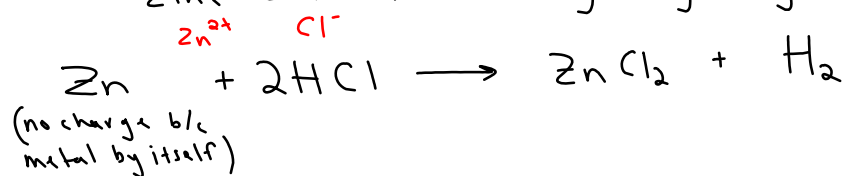


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Types of Rxns

Types of Rxns

Synthesis $A + X \rightarrow AX$

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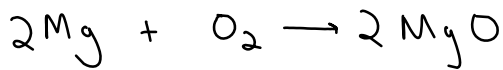
Synthesis

$$A + X \rightarrow AX$$

(1 prod)

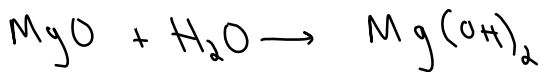
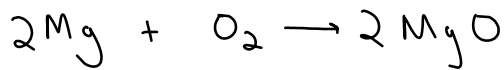
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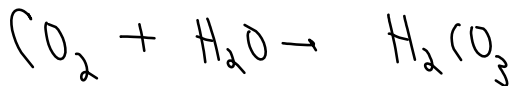
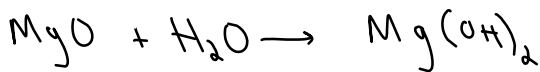
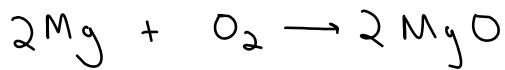
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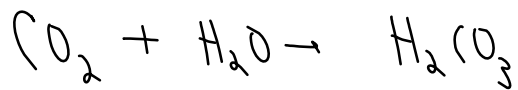
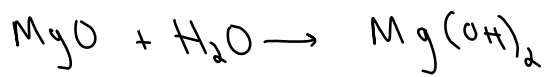
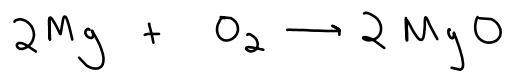
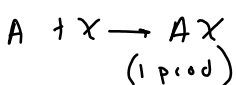
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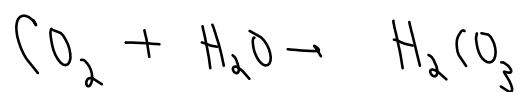
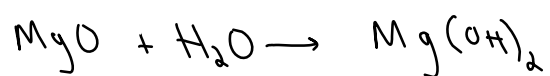
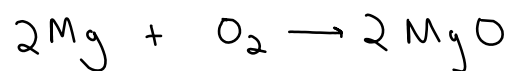
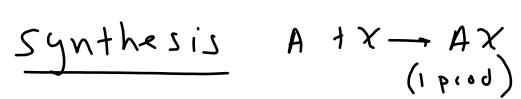
Synthesis



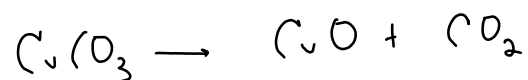
Decomposition

Types of Rxns

Synthesis

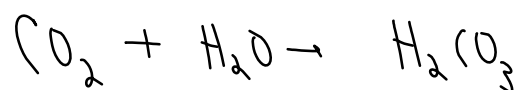
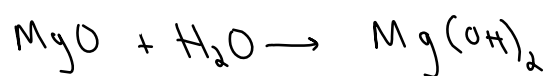
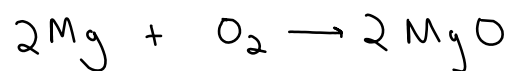
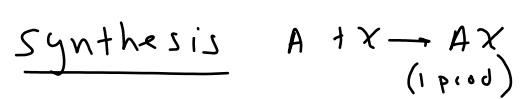


Decomposition ($AX \rightarrow A + X$)

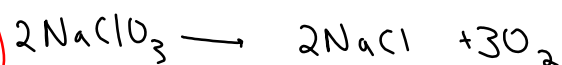
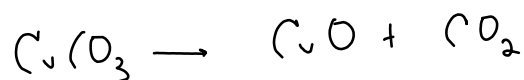


Types of Rxns

Synthesis



Decomposition ($AX \rightarrow A + X$)

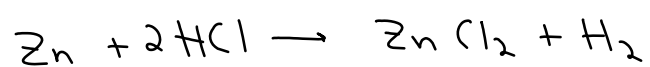


Single Replacement

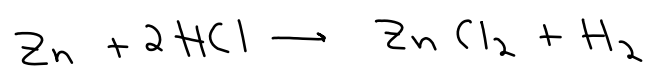
Single Replacement



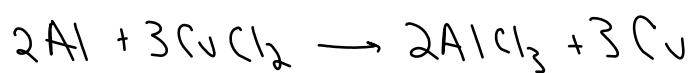
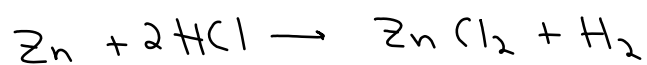
Single Replacement



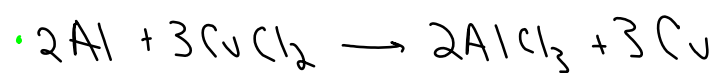
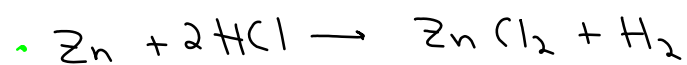
Single Replacement



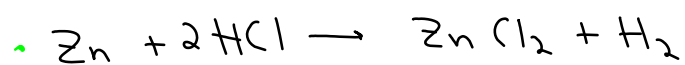
Single Replacement



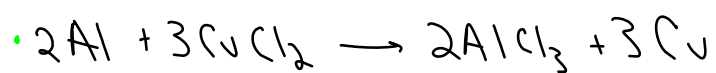
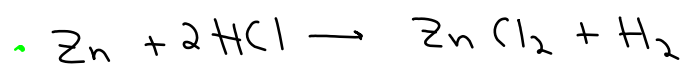
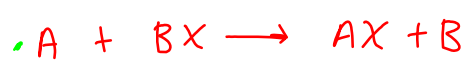
Single Replacement



Single Replacement

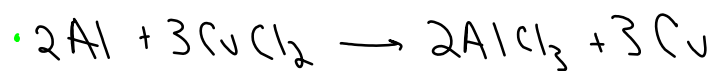
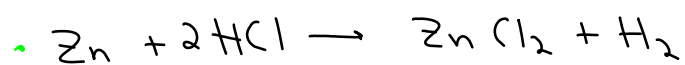


Single Replacement

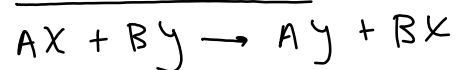


Double Replacement

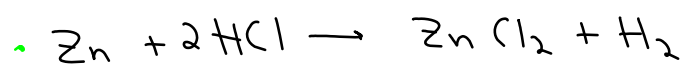
Single Replacement



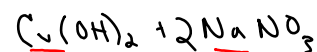
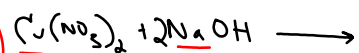
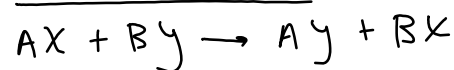
Double Replacement



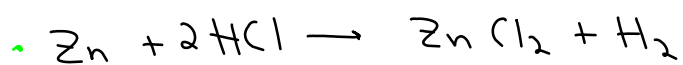
Single Replacement



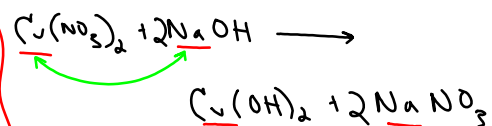
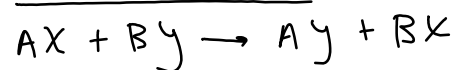
Double Replacement



Single Replacement

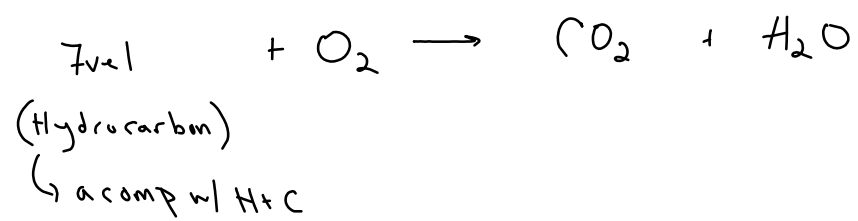


Double Replacement

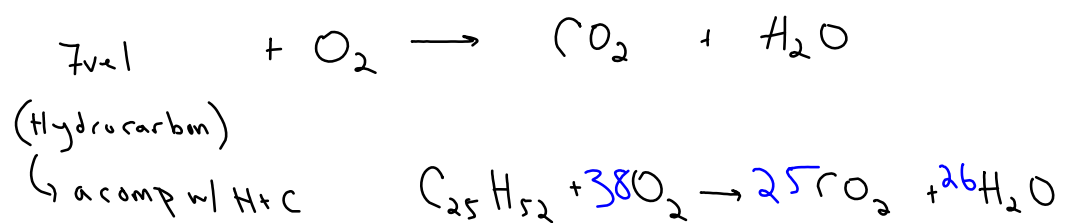


Combustion Rxns

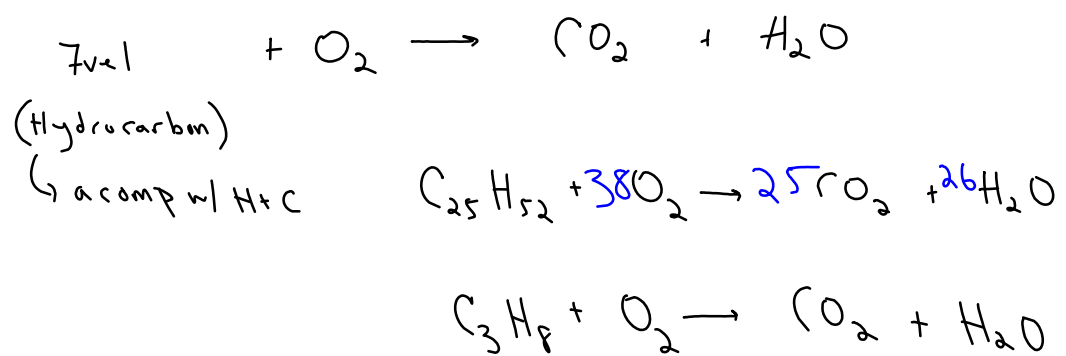
Combustion Rxns



Combustion Rxns



Combustion Rxns



Combustion Rxns

